T E C H N I C A L M E M O R A N D U M

Utah Coal Regulatory Program

September 30, 2003

TO: Internal File

THRU: Stephen J. Demczak, Environmental Scientist III/Engineering, Team Lead

FROM: James D. Smith, Environmental Scientist III/Hydrology

RE: Update Volume 10, PacifiCorp, Deer Creek Mine, C/015/018, Task ID #1658

SUMMARY:

The road to the Deer Creek Mine waste rock disposal site has been surfaced with roto-milled asphalt, which was recycled from a road-resurfacing project in Huntington Canyon. This new surface will greatly reduce dust and reduce or eliminate the need for application of magnesium chloride.

Several other changes have been included in this amendment that are not related to the resurfacing of the road. These include removal of silt fences, changes in repair of rills and gullies, and alternatives to riprap at inlets and outlets to culverts.

Approval of the resurfacing is recommended as it will reduce air pollution and contribute to controlling sedimentation and erosion along the road. However, the Permittee needs to provide additional information before the other proposed changes can be approved.

TECHNICAL ANALYSIS:

OPERATION PLAN

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

Sediment Control Measures

In the proposed revision of Table I, the Permittee has changed Sediment Control at the Waste Rock Site Access Road and at the Waste Rock Site Berm Outslope from Silt Fence to Vegetation. Drawing 4-5 (CM-10778-DR) and the current Table I show both vegetation and silt fence are used as sediment control measures along the access road: 0.11 acre treated with silt fence and 0.58 acre treated by revegetation. Table I proposes silt fence as the only sediment control measure for the Waste Rock Site Berm Outslope (1.72 acres).

DOGM approved removal of most of the silt fence along Waste Rock Site access road effective May 13, 1997 (ACT/015/018-97A). However, based on a review of revegetation cover, done by both DOGM and Energy West personnel during the summer of 1996, revegetation had been found deficient to control sedimentation and erosion along specific sections of the waste rock disposal site access road. Silt fence was therefore retained as the sediment control measure in specific locations, providing sediment control for a combined area of 0.11 acre. The proposed revised Table I would change the sediment control measure for these locations (0.11 acre) along the road from silt fence to revegetation.

Pages 2-5 and 2-6 of the MRP state that, during both Phase I and Phase II of the waste rock disposal site, silt fence filter will be installed and maintained along the outside toe of the fill or "berm fill". The proposed revision still contains these commitments, on pages 2-6 and 2-8. The 1996 review produced a determination that the silt fence was to be retained around the base of this soil berm. Table I on page 2-10.0 (revised March 26, 1997) shows that sediment control for the 1.72 acres of the Waste Rock Site Berm Outslope ASCA is to be silt fence.

Page 2-10 was revised March 26, 1997 to state, "When revegetation, as outlined in volume 10, page 3-7, chapter 3, has met those requirements, silt fencing … can be removed (with DOGM approval) and vegetation will become the primary treatment method." The Permittee has submitted a proposed change to remove the silt fence and use vegetation as the sediment control measure at all locations along the Waste Rock Site Access Road and the Waste Rock Site Berm Outslope. The Permittee has not submitted data, inspection reports, or other information to show that vegetation now meets the requirements outlined on page 3-7, that vegetation is adequate to control sedimentation, and that the silt fence can be removed.

Commitments - to control sedimentation and erosion on fill slopes by backfilling where erosion is over 9 inches deep, ripraping small channels that develop where drainage concentrates, and cleaning silt fences - have been stricken in the proposed amendment (page 2-4 of the current MRP). These specific commitments have been replaced by a general commitment (page 2-5 of the proposed amendment) that "Sediment control measures will conform to the requirements of R645-301-742". Although R645-301-742 does not provide the same specificity as the

commitments that are being removed, the expected performance results remain: minimize erosion, meet effluent limitations, and prevent additional contributions of sediment to streamflow or runoff outside the permit area.

Discharge Structures

Under the discussion of access-road drainage controls on page 2-5 of the current MRP is the commitment to use riprap to control erosion at the inlets and outlets of all culverts. In the proposed change, the words "or other method" have been inserted after "riprap". "Sediment control measures will conform to the requirements of R645-301-742" has also been added.

There are undoubtedly other acceptable methods than riprap to control erosion at these inlets and outlets, but the Permittee needs to clarify that before any "other methods" are implemented an amendment to the MRP - with the proposed changes in methods or materials - will be submitted to the Division for approval.

Findings:

The permittee did not meet the minimum requirements of this section. Prior to approval the permittee must address the following R645 Coal Rules.

R645-301-742.110, There are no data, inspection reports, or other information presented to support the proposed removal of silt fence from along the Waste Rock Site Access Road and at the Waste Rock Site Berm Outslope.

R645-301-742.110, Regarding any "other method" for controlling erosion at culvert inlets and outlets, the Permittee needs to clarify that an amendment to the MRP with the proposed changes in methods or materials will be submitted to the Division for approval before such changes are implemented.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

Mining Facilities Maps

Drawing CM-10778-DR (Map Packet 4-5) and the current Table I show both vegetation and silt fence are used as sediment control measures along the access road: 0.11 acre treated

with silt fence and 0.58 acre treated by revegetation. The silt fence along the outside toe of the fill or "berm fill" at the Waste Rock Site is not clearly shown on either Drawing CM-10778-DR (Map Packet 4-5) or CM-10779-DR (Map Packet 4-6).

Findings:

The permittee did not meet the minimum requirements of this section. Prior to approval, the permittee must address the following R645 Coal Rules.

R645-301-741, The silt fence along the outside toe of the fill or "berm fill" at the Waste Rock Site is not clearly shown on either Drawing CM-10778-DR (Map Packet 4-5) or CM-10779-DR (Map Packet 4-6).

RECOMMENDATIONS:

The proposed amendment should not be approved until the requirements of the Coal Mining Rules have been adequately addressed, as outlined above in this Technical Assessment.

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